ASSISTANT SECRETARY OF DEFENSE

6000 DEFENSE PENTAGON
WASHINGTON DC 20301-6000

December 20, 1993

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS CHAIRMAN OF THE JOINT CHIEFS OF
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: Selection of Migration Systems

The attached guidance provides the minimum specific evaluation criteria to be used in the selection of command and control (C2), intelligence, and information management migration systems. These criteria build on my memorandum of November 13, 1993, same subject, and are based, in large part, on the formal migration criteria developed by the Center for Integration and Interoperability (CFII) within the Defense Information Systems Agency. As always, the perspective of the warfighter must be maintained throughout the selection process.

I will task the Intelligence Systems Board (ISB) to evaluate, consolidate, and integrate the inputs for intelligence systems. The Military Communications Electronics Board (MCEB)/J6 is requested to provide a similar service for C2 inputs. The Deputy Assistant Secretary of Defense (Information Management) (DASD(IM)), in consultation with the Components, will evaluate, consolidate, and integrate the inputs for information management systems. Addressees must provide their inputs, in accordance with the attached guidance, to the ISB, the MCEB/J6, and the DASD(IM) by February 15, 1994. The ISB, MCEB/J6, and the DASD(IM) will then provide integrated recommendations to me by March 31, 1994.

Since final recommendations and selections will be based on these inputs, I want to emphasize that it is imperative that they contain complete and accurate information. Addressees are required to describe their selected migration systems in the terms delineated in the attached guidance. System submissions that are not described comprehensively, according to the attached guidance, will be excluded from further consideration.

Emmett Paige, Jr.

Attachment

27 DEC 1993

Department of Defense
Detailed Selection Criteria for C31 Migration Systems

OBJECTIVES

The focus of this selection effort is automated information systems (AIS) that support Intelligence, Command and Control (C2), Counterintelligence (CI), and information Management. Mission-support collection systems are excluded.

Per the cover memorandum, this attachment provides the specific criteria that will be used to select the migration systems as required by the Deputy Secretary of Defense (DEPSECDEF) memorandum of 13 October 1993, "Accelerated Implementation of Migration Systems, Data Standards, and Process Improvement." The criteria presented herein further clarify and expand upon the generic criteria released by me in the ASD(C31) memorandum dated 12 November 1993. The objectives of the specific guidance provided herein are to ensure that all system submissions are fairly and adequately described, that they are described in team that permit expedient examination of their current capabilities and characteristics, and that all candidate system can be compared/contrasted with each other using common criteria.

GENERAL GUIDANCE

The candidate systems should be characterizes in terms of the functions they support and evaluated with respect to technical, programmatic, and data criteria. Part I describes the method for functional categorization. Parts II, III, and IV provide the technical, programmatic, and data evaluation criteria. Each part provides specific instructions to be followed in describing your migration system submissions. It is imperative that you describe each system submission in complete accordance with the instructions specified in each part.

ADDRESSEES and POCs FOR SYSTEM SUBMISSIONS
(NLT 15 February 1994)

Intelligence and CI inputs should be addressed to:
Intelligence Systems Board
Attn: Jim Davidson
Intelligence Systems Secretariat
Community Management Staff
Room 5E56, OHB
Washington, DC 20505

C2 inputs should be addressed to:
The Joint Staff
JCS/J6
Attn: LTC Bruce Parkins, J6E
Washington, DC 20318

Information Management (to include Security Countermeasures) inputs should be addressed to:
Deputy Assistant Secretary of Defense for Information Management (DASD(IM))
Attn: Walt Brown
The Pentagon, Room 3E240
Washington, DC 20301

[Note that combined or consolidated Intelligence/C2 systems that are submitted should be sent to both the Intelligence and C2 addressees noted above.)

Questions to the ISB or questions related to the intelligence selection process should be addressed to Jim Davidson, 703-482-6379.

Questions related to the selection criteria should be ad to Pat McGrady, IPSGINCA, 703-883-3326 or COL K Schneider, DISA/CFIL 703-756-4740.

Questions related to the C2 system selection process should be addressed to LTC Bruce Parkins, Joint Staff/J6-E, 703-694-5651.

Questions related to the counterintelligence system selection process should be ad to Mr. Dan Christman, 703-697-9586.

Questions related to the information management system selection process should be addressed to Mr. Walt Brown, 703-697-3243.

Department of Defense
Detailed Selection Criteria for C31 Migration Systems

Part I
Functional Categorization

DIRECTIONS

I. Your Functional Categorization packet consists of:

a. Mission-specific Applications Matrix

(1) Matrix: The column titles are a breakout of Intelligence, C2, CI and Information Management functions. The row titles are a breakout of the types of mission-specific system applications used to support the mission functions. An individual row-column intersection point on the matrix denotes a mission-specific application used by the candidate system to support a specific function.

(2) Breakout Sheets (Intelligence, C2, CI Information Management): These sheets define the next level of sub-functions for those listed as column titles on the matrix. They can be used to further clarify the matrix column titles.

b. List of Analyst Tools and Infrastructure Applications/Services

This list identifies a preliminary set of the types of analyst tools and system infrastructure applications and services characteristic of an open-systems client-server environment for Intelligence, C2, CI and Information Management systems. Infrastructure application/services are the features necessary for all AIS and those AIS features that are transparent to the user. Analyst Tools am applications that are necessary for all AIS within a specific community (e.g., Intelligence, C2, CI, Information Management). Definitions of those tools and applications/services already included in the listing are provided. For additional tools and applications/services that you may add, please provide brief definitions.

II. Instructions for completing the Functional Categorization Packet are shown below.

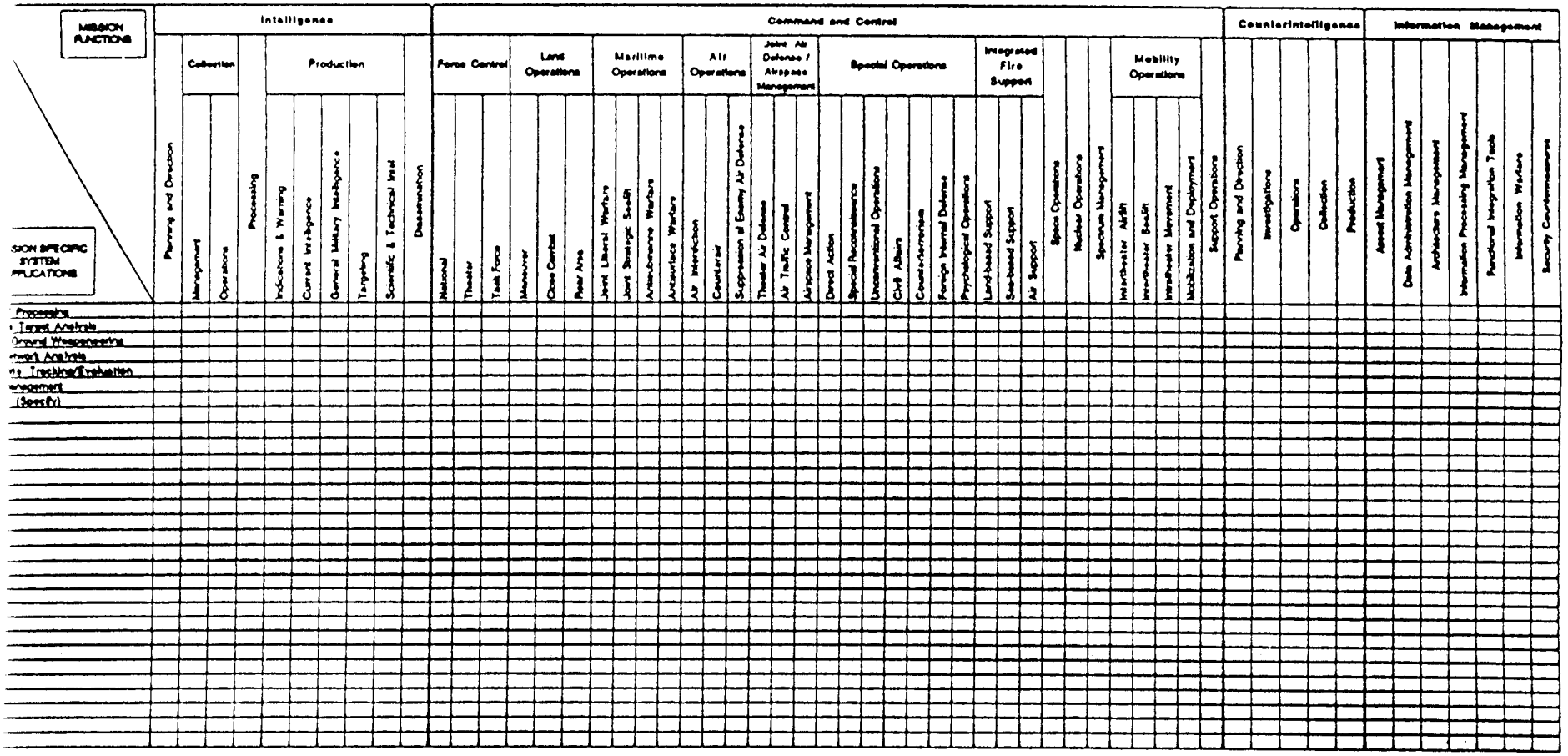
1. Fill out one copy of the matrix for each existing system included within your migration strategy.

2. Enter an 'X' in the matrix for each mission function/mission-specific system application in on (Intelligence, C2, CL and/or Information Management) applicable to the candidate system. For each "X" entered, if your mission-specific application does not support all of the subfunctions identified in the Breakout Sheet for the relevant function, place an "X" on the Breakout Sheet next to each sub-function that is supported.

3. Identify the specific products (COTS, GOTS, other. e.g., "IslandWrite", "WordPerfect", etc.) that comprise the Analyst Tools and infrastructure Applications/Services suites for the candidate system by listing each product in the blank next to the appropriate category shown on the list. If the candidate system includes Analyst Tools and/or infrastructure Applications/Services not applicable to the categories shown on the list, add the appropriate category and product to the bottom of the list.

III. Based on the categorization, the degree of relative functionality provided by candidate systems within each category should be considered in system selection. Evaluees may wish to conduct a specific functional evaluation of each candidate system to determine the degree to which the system meets overall functional requirements as well as the ease of migration. Evaluees are reminded that once a system is selected to support a given functional area, the functionality of the system will be developed over the three year migration period to accommodate the needs of that community.

MISSION-SPECIFIC APPLICATIONS MATRIX



Department of Defense
Detailed Selection Criteria for C31 Migration Systems

Part I
Functional Categorization

Intelligence Functions Breakout Sheet

- PLANNING AND DIRECTION
  - LONG RANGE PLANNING
  - IDENTIFY STANDING REQUESTS
  - VALIDATE REQUESTS
  - PLAN REQUIREMENT SATISFACTION
  - MONITOR STATUS OF REQUEST
  - CHECK SATISFACTION
- COLLECTION
  - COLLECTION MANAGEMENT
  - COLLECTION OPERATIONS
- PROCESSING
  - CHARACTERIZE COLLECTED DATA
  - DETERMINE APPROPRIATE FORMAT
  - FORMAT DATA
  - FILTER INFORMATION
- PRODUCTION
  - INDICATION AND WARNING
    - Plan Production
    - Exploit Information
      - Perform Isolated Interpretation
      - Perform Initial Analysis
    - Assess Information
    - Integrate Information
    - Assemble Product
  - CURRENT INTELLIGENCE
    - Plan Production
    - Exploit Information
      - Perform Isolated Interpretation
      - Perform Initial Analysis
    - Assess Information
    - Integrate Information
    - Assemble Product
  - GENERAL MILITARY INTELLIGENCE
    - Military Capabilities Assessment
    - Military-Related Intelligence Assessment
    - Enemy Course of Action Assessment
  - TARGETING
    - Plan Production
    - Exploit Information
      - Perform Isolated Interpretation
      - Perform Initial analysis
    - Assess Information
    - Assemble Product
  - SCIENTIFIC AND TECHNICAL INTELLIGENCE
    - Plan Production
    - Exploit Information
      - Perform Isolated Interpretation
      - Perform Initial Analysis
    - Assess Information

Integrate Information
Assemble Product

DISSEMINATION

DETERMINE SECURITY REQUIREMENTS
DETERMINE DISSEMINATION MEDIA
DETERMINE COMMUNICATIONS VEHICLE
DETERMINE DISTRIBUTION LIST
DISTRIBUTE INTELLIGENCE

Department of Defense
Detailed Selection Criteria for C3I Migration Systems

Part I
Functional Categorization

Command and Control Functions Breakout Sheet

FORCE CONTROL
- NATIONAL
- THEATER
- TASK FORCE

LAND OPERATIONS
- MANEUVER
- CLOSE COMBAT
- REAR AREA

MARITIME OPERATIONS
- JOINT LITTORAL WARFARE
- JOINT STRATEGIC SEALIFT
- ANTISUBMARINE WAREFARE
- ANTISURFACE WARFARE

AIR OPERATIONS
- AIR INTERDICTION
- COUNTERAIR
- SUPPRESSION OF ENEMY AIR DEFENSE

JOINT AIR DEFENSE/AIRSPACE
- THEATER AIR DEFENSE
- AIR TRAFFIC CONTROL
- AIRSPACE MANAGEMENT

SPECIAL OPERATIONS
- DIRECT ACTION
- CIVIL AFFAIRS
- COUNTERTERRORISM
- FOREIGN INTERNAL DEFENSE
- PSYCHOLOGICAL OPERATIONS
- SPECIAL RECONNAISSANCE
- UNCONVENTIONAL OPERATION

INTEGRATED FIRE SUPPORT
- LAND-BASED SUPPORT
- SEA-BASED SUPPORT
- AIR-BASED SUPPORT

SPACE OPERATIONS
- FORCE APPLICATION
- FORCE ENHANCEMENT
- SPACE CONTROL
- SPACE SUPPORT

NUCLEAR OPERATIONS
- NONSTRATEGIC NUCLEAR OPERATIONS
- STRATEGIC NUCLEAR DEFENSE
- STRATEGIC NUCLEAR OFFENSE
- CONTINUITY OF OPERATIONS

SPECTRUM MANAGEMENT

MOBILITY OPERATIONS
- INTERTHEATER AIRLIFT
- INTERTHEATER SEALIFT
- INTRATHEATER MOVEMENT
- MOBILIZATION AND DEPLOYMENT

SUPPORT OPERATIONS
- HUMANITARIAN ASSISTANCE
- COMMAND AND CONTROL WARFARE
- LOGISTICS
- COMBAT SEARCH AND RESCUE
- COUNTERDRUG OPERATIONS
- EXERCISE CONTROL OPERATIONS
- PERSONNEL SERVICES SUPPORT
- INFORMATION SECURITY
- ENVIRONMENTAL SUPPORT
- HOST NATION SUPPORT
- MEDICAL SUPPORT

Department of Defense
Detailed Selection Criteria for C31 Migration Systems

Part I
Functional Categorization

Counterintelligence Functions Breakout Sheet

PLANNING AND DIRECTION
- SET PRIORITIES AND OBJECTIVE
- PERFORMANCE MONITORING
- PROVIDE GUIDANCE

INVESTIGATIONS
- LEAD GENERATION PROGRAMS
- INVESTIGATIVE ACTIVITIES
- CASE MANAGEMENT
- COUNTER THREAT

OPERATIONS
- PLAN OPERATIONS
- CONDUCT OPERATIONS
- OPERATIONAL MANAGEMENT
- EXPLOIT OPERATIONS

COLLECTION
- COLLECTION MANAGEMENT
- COLLECTION OPERATIONS

PRODUCTION
- PLAN PRODUCTION
- EXPLOIT INFORMATION
- ASSESS INFORMATION
- INTEGRATE INFORMATION
- ASSEMBLE
- DISSEMINATE PRODUCT

Department of Defense
Detailed Selection Criteria for C3I Migration Systems

Part I
Functional Categorization

Information Management Functions Breakout Sheet

ASSET MANAGEMENT
- ASSET INVENTORY MANAGEMENT
- EQUIPMENT RE-UTILIZATION
- SOFTWARE RE-UTILIZATION
- REPORTING
- SHARING
- DIRECTORIES

DATA ADMINISTRATION MANAGEMENT
- DATA MODEL REPOSITORY
- DATA DICTIONARY
- DIRECTORIES

ARCHITECTURE MANAGEMENT
- INFORMATION TECHNOLOGY MODEL REPOSITORY
- STANDARDS MANAGEMENT
- OBJECT-ORIENTED TECHNOLOGY
- ACTIVITY MODEL REPOSITORY
- DIRECTORIES

INFORMATION PROCESSING MANAGEMENT
- OPERATIONS MANAGEMENT
- CAPACITY MANAGEMENT
- CLIENT/SERVER APPLICATIONS
- COMPUTER AND SOFTWARE ENGINEERING TOOLS
- SECURITY MANAGEMENT
- CONFIGURATION AND CHANGE MANAGEMENT
- DIRECTORIES

FUNCTIONAL INTEGRATION TOOLS
- SUPPORT TOOLS

INFORMATION WARFARE
- RECORD MANAGEMENT

Functional Categorization
Analyst Tools and Infrastructure Applications/Services

Analyst Tools

1. MIIDS/IDB Data ----------
2. "xxx" (C2) Data ----------
3. "xxx" (IM Data ----------
4. AMHS ----------
5. Imagery Processing ----------
6. Decision Aid ----------
7. Voice Processing ----------
8. Video Teleconferencing ----------
9. Map Services ----------
10. Data Fusion ----------
11. Expert System ----------
12. Simulation/Modelling ----------
13. Position Location/Tracking ----------
14. Other (specify) ----------

Infrastructure Applications/Services

1. Word Processing
2. Spreadsheet
3. DBMS
4. Data Storage Services
5. Data Interchange
6. File Transfer
7. E-mail
8. Network Service
9. Network Management
10. Printer Services
11. Security Services
12. Diagnostic Services
13. Image Display
14. GUI
15. Multi-media
16. Graphics
17. Software Development Services
18. Video Hardcopy
19. Structured Query Language (SQL)
20. Operating System
21. Other (specify)

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Detailed Selection Criteria for C31 Migration Systems

Part I
Functional Categorization

Analyst Tools and Wrastructure Services/Applications
Definitions

Analyst Tool

MIIDS/IDB Data. The intelligence community repository of world-wide order-of-battle and installation data.

AMHS (Automated Message Handling System). AMHSs accept messages from and enable users to submit messages to the messages in message systems. Generally, AMHSs have a message base consisting of a data base of messages and a set of user profiles, and a message system consisting of software and interfaces needed to access messages and compose and read messages.

Imagery Processing. Processing and printing imagery to the positive or negative state, assembly into imagery packs, identification, interpretation, mensuration, information extraction, the preparation of reports and the dissemination of information; may also include geopositioning, rectification, resampling, compression/decompression, and digital filtering for special applications.

Decision-Aid. Computer program that assists user in decision making process. Provides access to needed data and guidance in developing alternatives and selecting among them.

Voice Processing. The capability to store, enhance, modify, encode/decode, perform digital to analog or analog to digital conversion, or automatically translate voice.

Video Teleconference. The capability to transmit and receive digital video and voice at multiple locations so that participants may interact with one another.

Map Services. Includes capability to receive, store, and display geospatial information. Provides raster and vector maps, geolocated imagery, and other geospatial information to expert systems. decision aids, simulators, training devices, and map displays.

Data Fusion. Applications that support the process of examining all sources of intelligence and information to derive a complete assessment of activity; also, the integration of structurally or functionally different data or data from various sources.

Expert System. A computer program containing much of the knowledge used by an expert in a specific field. Provides user friendly interface to the knowledge base.

Simulation/Modeling. The ability to simulate or model an activity or course of action to enable prediction of possible outcomes based on various input parameters.

Position Location/Tracking. The capability to determine location of an entity, object, or person and to plot or monitor movement in near-real time. Includes ability to logically and visually relate location to a map base.

Infrastructure Applications/Services

Word Processing. Creating, editing, formatting, and displaying or printing text.

Spreadsheet. Reproduction of a worksheet in a column-row format on-screen that enables an operator to embed hidden formulas that perform calculations on the visible data.

DBMS (Data Base Management System). Data processing system/software that provides the to store, organize, and access the information in a database.

Data Storage Services. The capability to store and retrieve large quantities (gigabytes) of historical/archival data.

Data Interchange. Data interchange services provide specific support for the exchange of information, including format and semantics of data entities, between applications on the same or different platforms.

File Transfer. A service providing a family of commands for performing file and directory operations over a network.

E-Mail. Electronic mail. A message transfer system that uses the Multichannel Memo Distribution Facility (MMDF II(B)).

Network Service. Provision for access to a local area or wide area network (LAN/WAN) involving multiple terminals or workstations.

Network Management. Capability to define and manage user resource allocation and access (i.e. what resources are managed and the classes of access defined), configuration and performance management of devices, file systems, administrative processes (job accounting), quires machine/platform profiles, authorization of resource usage, and system back-up. Usually responsibility of a network system manager.

Printer Services. Provides ability to access one or more printers of various types from a stand-alone system or a system on a network

Security Services. Security services provide protection against threats to systems and networks by maintaining the confidentiality. integrity, and availability of information contained in or resident on the system. Includes accountability, authentication, and access control features.

Diagnostic Services. Programs that test computer hardware and software to determine whether they are operating properly. May include programs for testing performance of networks. If tests fail, specific faults are identified.

Image Display. Provides the ability to receive and display images on a video display unit (VDU). Image is represented on the screen as a rectangular array of picture elements (pixels) indexed by row and column.

GUI (Graphical User Interface). An interface used by display workstations to interface with users that provides a consistent application programming interface and a standard "look and feel". Examples are OSF Motif, Sun Open Look, and Microsoft Windows.

Multimedia. The presentation of information on a computer/workstation using graphics, sound, animation, and text. Includes the ability to manipulate multiple forms of digital and analog audiovisual data within a single application.

Graphics. Graphics services provide functions required for creating and manipulating displayed images. These services include display element definition and management, and image attribute definition.

Software Development Services. The capability to write, maintain, and modify computer program instructions and data to include the languages, codes, messages, and protocols that programs use to communicate with each other. Includes programs that assist in the automated development and maintenance of software.

Video Hardcopy. The capability to print-out a video display, including images.

Structured Query Language (SQL). Data management service that permits query of structured data stored in a relational database.

Operating System. The core services needed to operate and administer the application platform and provide an interface between the application software and the platform.

Department of Defense
Detailed Selection Criteria for Migration Systems

Part II
Technical Evaluation Criteria

PURPOSE

The technical evaluation criteria for migration system selection provide a basis for determining the extent to which the candidate system currently conforms to, or can evolve (migrate) to, the open-systems environment and standards-based architecture defined by the DoD Technical Architecture Framework for Information Management (TAFIM). These criteria are presented in the form of questions whose multiple choice answers are defined by specific metrics, also provided, pertaining to each aspect of the technical environment for automated information systems.

INSTRUCTIONS

The technical evaluation criteria consist of a set of questions and a set of provided metrics for each question. Please answer each question by catering the letter ("a", "b", "c",...) that corresponds to the appropriate response metric.

1. To what degree is system compliant with DODIIS or DOD TAFIM (circle one) standards profiles? _____

2. To what level is the system compliant with DODIIS or DOD TAFIM (circle one) security policy/requirements? _____

3. What is the level of system compliance with DODIIS or DOD TAFIM (circle one) Human-Computer Interface standards? _____

4. How well does the system support DODIIS or DOD TAFIM (circle one) standards for communication (TCP/IP and GOSIP)?_____

5. What is the level of system POSIX compliance?_____

6. Which data interchange standards apply to the system? _____

7. What is the level of system configuration management?_____

8. To what extent can functions be separated from applications without major re-design or re-engineering effort?_____

9. To what degree does the system employ proprietary design, source code, or support measures?_____

10. What programming languages does the candidate system employ?_____

11. What is the systems maintenance/reliability history?_____

12. Does the system comply with MROC 1-89 (Command Centers) and/or the JCS Command Center Systems Architecture and Integrated Program Summary (IPS) Guidance FY92-97?_____

13. What is the system's capacity to scale information processing, storage, and display characteristics?_____

14. What is the systems capacity to change functionality in response to changing user needs?_____

15. What level of user training is required to effectively operate the system?_____

16. What is the level of system interaction with other systems?_____

17. What survivability characteristics are inherent in the candidate system? (this is not a multiple choice question -- place a check mark next to the appropriate characteristics)

18. What specific Mission Needs Statements (MNS) and/or Operational Requirements Documents (ORDS) drove the development/fielding of the existing systems included

within each of your recommended migration strategies? (this is not a multiple choice question -- list the appropriate documents)

Question 1 (Standards Profile Compliance):

a. System is fully compliant with DODIIS or DOD TAFIM (circle one) standards profiles
b. Some top level compliance identified, but no specific data on standards profile compliance.
c. Only minimal compliance, system/equipment will require major modification for standards compliance.
d. System/equipment is not standards compliant and it will be difficult to modify it to be complaint.
c. Unknown/not applicable.

Question 2 (Security):

a. Satisfies all engineering criteria for multilevel security protection using commercial products.
b. Satisfies all DODIIS or DOD TAFIM (circle one) criteria for compartmented mode security protection using commercial products.
c. Satisfies DODIIS or DOD TAFIM (circle one) System High criteria: using COTS components and Open System standards.
d. Does not satisfy DODIIS or DOD TAFIM (circle one) security policies or requirements for compartmented mode operations.

Question 3 (Human-Computer Interface):

a. Complies with DODIIS or DOD TAFIM (circle one) GUI standards; X11R4, OSF/Motif, DOD HCI Style Guide.
b. Uses DODIIS or DOD TAFIM (circle one) GUI standards, but performance standards require character-based interfaces at some locations.
c. Uses other proprietary GUI, but software design allows easy re-engineering to DODIIS or DOD TAFIM (circle one) standards.
d. Uses other proprietary GUI and would not be easily re-engineered to comply with DODIIS or DOD TAFIM (circle one) standards.
e. Does not use any GUI and would be difficult to re-engineer to modern HCI practices.

Question 4 (Communications/Network Services)

a. Uses DODIIS or DOD TAFIM (circle one) standard communications and network services and interfaces.
b. Uses DODIIS or DOD TAFIM (circle one) standard interfaces, but may use unique communications services.
c. Does not meet DODIIS or DOD TAFIM (circle one) standards for communications interfaces and applications, but can easily be upgraded to do so.

d. Does not meet DODIIS or DOD TAFIM (circle one) standards and would be difficult to upgrade.
e. Uses proprietary communications standards that are tightly coupled to functions.

Question 5 (Operating System)

a. Uses standard operating system application programming interfaces (APIs) identified in POSIX.1 and POSIX.2 and is NIST-certified compliant.

b. Uses X/OPEN branded components and is developed according to the X/OPEN Portability Guide.

c. Uses a UNIX operating system, and would have to be re-engineered to use POSIX standard APIs.

d. Uses proprietary APIs and operating systems.

Question 6 (Data Interchange)

a. Uses applicable DODIIS or DOD TAFIM (circle one) data interchange standards as its native data format.

b. Applications do not use applicable DODIIS or DOD TAFIM (circle one) data interchange standards as native data format, but system has a conversion facility to and from the applicable standards.

c. Applications are not compliant with applicable DODIIS or DOD TAFIM (circle one) data interchange standards, but can be re-engineered to meet applicable standard. d. Applications use proprietary data formats that apply to data interchange. Reengineering to meet standards would be difficult.

Question 7 (Documentation/Configuration Management)

a. MIL-STD-2167A documentation clearly identifies functions and interfaces, is under well defined configuration control, and is up to date.

b. MIL-STD-2167A documentation clearly identifies functions and interfaces, and is up to date.

c. MIL-STD-2167A documentation clearly identifies functions and interfaces, and is under configuration control

d. MIL-STD-2167A documentation is not clear, there is no configuration management, or the documents are not up to date.

e. There is no current documentation for the candidate system.

Question 8 (Software Modularity)

a. Designed and built using standard libraries and CASE tools and methods. Functions are easily isolated and removed or added.

b. Designed and built using CASE tools and methods, but not standard libraries and tools. Some functions are easily isolated.

c. Difficult to isolate functional components that share procedures.

d. Relies on global, run-time data structures. Functions must share data and cannot be easily isolated.

e. All functional processes are tightly coupled and it would be impossible to isolate functional components.

Question 9 (System/Equipment Design)

a. System has no proprietary features.

b. It is possible that system proprietary features could adversely impact operation, maintenance, or sustainment of the system/equipment.

c. System has proprietary features that adversely impact operation, maintenance, or sustainment of the system/equipment.

Question 10 (Programming Language)

a. Uses ANSI Ada (MIL-STD-1815A)

b. Uses ANSI "C" and standard open system libraries.

c. Uses C++ without extensions.

d. Uses ANSI "C" but does not use standard libraries.

c. Uses other programming languages.

Question 11 (System Rehability/Maintenance)

a. System has no history of maintenance difficulties.

b. System has some hardware maintenance problems (e.g., lack of ruggedization, poor manufacturing, not designed to mission specifications, poor test equipment, lack of logistical support).

c. System has some software maintenance problems (e.g., numerous outstanding CCPS, lack of a support facility).

d. Both "b" and "c"' above apply to this system.

c. Not applicable.

Question 12 (System Compliance with DOD Development Directives)

a. System complies with each directive specified in the question.

b. System complies with MROC 1-89 only.

c. System complies with JCS CC Systems Architecture and EPS Guidance only.

d. Does not comply with specified directives.

e. Not applicable.

Question 13 (Scalability)

a. System incorporated user-selected data/tools for changing focus of information stored, processed and displayed at any location

b. System provides pre-selected data/tools for changing information processing focus; these tools are available at selected locations.

c. System cannot be scaled without major re-engineering.

Question 14 (Adaptability)

a. System is very flexible, responsive to changes in requirements from normal use, and incorporates highly adaptable functionality.

b. System is flexible beyond normal use, but requires great effort to change functionality from base.

c. Not adaptable to support changing user needs. Requires extensive reprogramming or development.

Question 15 (Ease of Use)

a. Novice. Incorporates powerful functions, extremely easy to use, screens/menus are highly intuitive, applications and data quickly accessed.

b. On-the-job trainee. Relatively easy to use when user becomes to system/language, nuance, requires some degree of hierarchical screen/menu search to access data and applications.

c. Demands expert-level user for majority of functions. No intuitive screen/menu characteristics, requires extensive screen/menu searches to access/tools.

Question 16. (System Interaction)

a. Products are currently being a interactively by AISs of other functional ares and activities.

b. Data generated is currently being accessed electronically through bulk data transfer for other functional area and activities.

c. Data generated is currently being accessed electronically through batch bulk data transfer using tape or other physical media.

d. Data generated is currently being accessed electronically through visual inspection via remote terminals.

e. Data generated is currently being accessed electronically through printed reports or verbal queries.

Question 17 (Survivability)

Hardening__
Ruggedization___
ECCM__
ENT__
Other (specify)__

Question 18 (MNS/ORD)

(To be listed by the submittor for each candidate.)

Department of Defense
Detailed Selection Criteria for Migration Systems

Part II
Programmatic Evaluation Criteria

PURPOSE

The programmatic evaluation criteria for migration system selection will provide a basis for conducting a detailed cost-benefit analysis of each candidate migration system. The cost-benefit analysis of each system will focus on re-engineering, deployment, and sustainment.

These criteria are presented in the form of questions whose multiple choice answers are defined by specific metrics pertaining to each aspect of the programmatic environment for automated information systems.

INSTRUCTIONS

The programmatic evaluation criteria consist of a set of questions followed by a set of metrics for each question. Please answer each question by entering the letter ("a", "b", that corresponds to the appropriate response metric.

Programmatic Evaluation Criteria

1. What is the development status of the system?__

2. What is the funding status of the system?__

3. What command level does the system support?__

4. What is the systems licensing support status?___

5. What is the system's Life Cycle Management Program status?___

6. What is the means for providing system support?___

7. What is the system/equipment replacement schedule?

8. What is the effect on other systems/programs if this system is eliminated?___

9. What are the contractual restrictions on system elimination or retention?__

10. What is the change in manpower support requirements if system is selected for migration?___

11. What is the technical risk associated with this system?___

12. Has an Integrated Logistics Support Plan (ILSP) been developed as required by MILSTD-1388-1A/2B?___

13. Does the system comply with Computer-Aided Acquisition and Logistics Support (CALS) standards and requirements?____

14. What is the size of the system user community?___

15. What is the system's re-engineering capacity?___

Programmatic Criteria Metrics

Question 1 (System Status)

a. Fully operational.
b. Operational but currently undergoing upgrades or pre-planned product improvement (P31).
c. System being developed via integration of existing systems/applications/programs.
d. System currently in prototype/demonstration phase of development
c. System currently in concept phase, no prototype exists.

Question 2 (System Funding Status)

a. Funding profile clearly established. No mission-critical or P3I non-funded requirements.
b. Mission-critical requirements are funded Planned system upgrades/P3I not currently funded
c. Funding profile established but 20% of mission-critical requirements are nonfunded
d. R&D/prototying efforts are funded, but system development funding profile is not established
c. System is not funded.

Question 3 (Program Source)

a. National/Joint
b. Joint
c. Multi-Service
d. Service specific
e. Implementation unique

Question 4 (Licensing Support for Applications)

a. There are no licensing fee restrictions.
b. License fees will not change if the use of application(s) is expanded.
c. License fees would increase if additional copies were distributed to other similar host platforms.
d. License fees for essential components will increase with the number of users.
e. License fees would increase if application(s) were hosted on another platform other than the type on which it is now running.

Question 5 (Life Cycle Management Program (LCMP))

a. An LCMP was developed in accordance with DOD 8120 and 7920 series of documentation.
b. An LCMP was developed in accordance with specific service regulations.
c. An LCMP is under development.
d. There is no LCMP for this system.

Question 6 (System Support)

a. Central design activity.
b. Contractor.
c. Separate organization of 30 or more personnel that is not designated as a CDA.

Question 7 (Replacement Schedule)

a. System is not currently scheduled for replacement
b. Scheduled for replacement within 2-6 years.
c. Scheduled for replacement within 2 years.
d. Scheduled for elimination without replacement
e. Answer not known/not applicable.

Question 8 (System Effect on other Programs)

a. No effect on any other system/equipment or program.
b. System is tied to the operation or information support of another system/equipment, elimination would cause support problems.
c. System is tied to a consolidation/modernization effort, retention or elimination will have a detrimental effect on this effort.
d. Answer not known.
c. Not applicable.

Question 9 (Contractual Restrictions)

a. No restrictions.
b. Contractual penalties.
c. Lack of a contract vehicle.
d. Restrictive clauses in contract.
e. Any combination of b, c, and d above.
f. Answer not known/not applicable.

Question 10 (Manpower Support)

a. Significant decrease.
b. Minor decrease.
c. No change.
d. Minor increase.
c. Significant increase.
f. Answer not known.

Question 11 (Risk)

a. No risk (fully proven/mature system)
b. Low risk (tested technology)
c. Risk involved (new technology, tested and sonic improvements required)
d. High risk (untested technology)
c. Answer not known/not applicable.

Question 12 (Integrated Logistics Support Plan (ILSP))

a. Yes
b. Some compliance.
c. No.
d. Answer not known.
c. Not applicable.

Question 13 (Computer-Aided Acquisition and Logistics Support (CALS))

a. Fully compliant.
b. System can be re-configured to comply with standards.
c. Not compliant
d. Answer not known.
c. Not applicable.

Question 14 (User Community)

a. In use by multiple agencies, services and commands throughout their structures. Also used within non-DOD US government and by Allies.
b. In use by multiple DOD agencies, services and commands throughout their structures. Also used within non-DOD US government agencies.
c. Used by more than one DOD Agency, Service, and Command.
d. In use by several DOD organizations within an Agency, Service, or Command.
e. In use by a single DOD or on.

Question 15. (Re-engineering Capacity)

a. Can accept new functionality to eliminate other systems and save costs within 3 years.
b. Can accept some functionality, can eliminate a system or parts of a system at acceptablecost within 3 years.
c. Can accept new functionality to eliminate other systems and save costs within 3 to 5 years
d. Can accept some functionality, can eliminate a system or parts of a system at acceptable cost within 3 to 5 years.
c. Cost to accept new functionality greater than system replaced, replacement impossible within 3 years.

Department of Defense
Detailed Selection Criteria for Migration Systems

Part IV
Data Evaluation Criteria

PURPOSE

The data evaluation criteria for migration system selection provide a basis for determining the extent to which the candidate system currently conforms to, or can evolve (migrate) to, conformance with the Data Model contained in the DoD Enterprise Model. These criteria are presented in the form of questions whose multiple-choice answers are defined by specific metrics pertaining to each aspect of the data environment for automated information systems.

INSTRUCTIONS

The data evaluation criteria consist of a set of questions and a set of metrics for each question. Please answer each question by entering the letter ("a", "b", "c"...) that corresponds to the desired appropriate metric.

Data Evaluation Criteria

1. What is the level of compliance of this system with the DOD Enterprise Data Model and DOD Data Element Standardization Procedures (DoD 8320. 1-M-1)?_____

2. What is the level of system Data Management?_____

3. What is the level of system Data Access Services?_____

4. What is the method of data validation for the system?____

Question 1 (Data Elements)

a. Standard data identified and documented as part of the DOD Enterprise Data Model and used by other functional areas.

b. Standard data identified and documented as part of the DOD Enterprise Data Model.

c. Standard data identified and documented as part of DOD 8320.1-M-1.

d. Standard data elements identified specifically for a functional activity or Agency requirement

e. Data elements defined locally at sites that serve only local activities.

Question 2 (Data Management)

a. System incorporates flexible, user-tailored data maintenance functions, query capability, report generation, and data extract (report and files). Data quality/integrity controls are used extensively during maintenance.

b. System data maintenance functions are fixed, incorporating canned reports, limited user-tailored queries, and selected data integrity checks during maintenance.

c. System provides canned query/reports only, limited/no maintenance, no data integrity checks.

Question 3 (Data Access Services)

a. Data definitions are maintained separate from the application program accessed through a DBMS using ANSI SQL.

b. Data definition are maintained separate, but are accessed using proprietary access methods.

c. Data is maintained by the application and is an integral part of the developed software code.

Question 4 (Data Validation)

a. Data validation takes place entirely within the database management component.

b. Data validation takes place primarily within the database management component.

c. Data validation takes place entirely within the applications program.

d. There is no validation for database updates.